

CLAIMS

1. Pressure regulation device for a hydraulic percussion appliance, comprising a body (2) within
5 which is formed a bore (3) having a plurality of zones of different diameters, in which is mounted a piston (4) having a plurality of zones of different diameters, the bore (3) and the piston (4) delimiting a plurality of chambers connected to the hydraulic circuit, in
10 order, under the action of a distributor, to ensure an alternating movement of the piston which strikes against a tool, characterized in that two axially offset components (17, 18) are mounted in the bore (3) of the body and concentrically to the piston, between
15 which components a deformable washer (19) is arranged, one (17) of the components being immobile and the other component (18) being mounted slidably in the bore and displaceably in the direction of the immobile component under the action of the hydraulic fluid feed pressure
20 which is exerted on that face of the movable component (18) which faces away from the immobile component (17), this displacement of the movable component (18) causing a deformation of the elastic washer (19) in order to give rise to a passage of variable cross section (26)
25 on the circuit (15) for the return of the hydraulic fluid towards the reservoir or on a circuit (29) which diverts part of the feed flow of the appliance towards the return circuit, so as to regulate the inlet pressure.

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2. Device according to Claim 1, characterized in that the immobile component (17) has formed in it a duct (24) connected to the hydraulic fluid high-pressure feed duct, directly or via an internal chamber, or, by
35 means of a distributor, to a chamber partially delimited by the piston and put alternately under high and low pressure, this duct issuing into that face of the immobile component (17) which faces the movable

component (18) and on which the elastic washer (19) rests, whilst a duct (16) connected to the return circuit (12) towards the reservoir issues into an annular volume located on that side of the elastic washer (19) which is opposite that bearing against the immobile component (17).

3. Device according to one of Claims 1 and 2, characterized in that the movable component (18) comprises, towards the immobile component, an annular recess (25) delimiting a central nose intended for coming to bear on that part of the elastic washer (19) which does not bear against the immobile component (17).

4. Device according to one of Claims 1 to 3, characterized in that the elastic washer (19) possesses a cross section of rectangular general shape, the lower face of which has, from the outside inwards, a heel (20) for bearing on the immobile component (17), and a surface which is parallel to the heel and set back from the latter and is connected by means of an edge (22) to a surface (23) inclined from the outside inwards and from the immobile component (17) towards the movable component (18).

5. Device according to one of Claims 1 to 3, characterized in that the elastic washer (19) possesses a cross section of rectangular general shape, and that part (27) of the wall of the immobile component (17) which is located radially inwards and serves as a bearing means for the elastic washer (19) is inclined from the outside inwards and in the opposite direction to the movable component.

6. Device according to one of Claims 1 to 5, characterized in that the immobile component (17) comprises an outer annular rim (30), the inside

diameter of which is slightly smaller than the outside diameter of the elastic washer (19).

7. Device according to one of Claims 1 to 6,
5 characterized in that the elastic washer (19) is made from steel, in particular from spring steel.

8. Device according to one of Claims 1 to 7,
characterized in that the immobile component (17) forms
10 an integral part of the body (2).